AMENDMENTS TO CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Previously Presented) An apparatus for creating logo data to be printed by a transaction printer, the apparatus comprising:

an operating unit;

a capturing unit for obtaining an original image that is subject to image processing in response to an operation performed via the operating unit;

an image processing unit for processing the original image to generate logo data for printing by the transaction printer;

wherein the logo data is image data stored in nonvolatile memory in the transaction printer for printing on a print sheet such as a sales receipt, transaction receipt, or other form;

an ink-amount calculating unit for calculating data that substantially relates to an ink-amount required for printing the logo data by the transaction printer; and

a display unit for displaying the logo data and the ink-amount data simultaneously, such that when a change is made to the displayed logo data, the ink-amount calculating unit recalculates an ink-amount for printing the changed logo data on the transaction printer in substantially real-time, and the display unit displays the changed logo data and the recalculated ink amount simultaneously.

2. (Original) An apparatus as described in claim 1, wherein the ink-amount calculating unit determines a number of color pixels in the logo data as attribute data.

3. (Original) An apparatus as described in claim 1, wherein the logo data contains a plurality of colors and the ink-amount calculating unit determines a pixel count for each color in the logo data as attribute data, and the display unit displays the pixel count for each color as attribute data.

4. (Original) An apparatus as described in claim 3, wherein the plurality of logo data colors includes a first printing color, a second printing color, and a non-printing color, the ink-amount calculating unit calculates as attribute data the pixel count of the first color and the pixel count of the second color, and the display unit displays the first color pixel count and the second color pixel count as respective attribute data.

5. (Original) An apparatus as described in claim 1, wherein the logo data contains a plurality of colors and the ink-amount calculating unit determines the total number of color pixels for all colors and determines a percentage of each color pixel count relative to the total pixel count, as attribute data.

6. (Original) An apparatus as described in claim 1, wherein the logo data contains a plurality of colors and the ink-amount calculating unit calculates a count of color pixels in the logo data and calculates the product of the color pixel count multiplied by an ink amount used to print a pixel, as attribute data.

7. (Original) An apparatus as described in claim 1, wherein the logo data contains a plurality of colors and the ink-amount calculating unit calculates a count of color pixels for each color in the logo data and calculates the product of the color pixel count multiplied by an ink amount used to print a pixel for each color in the logo data, as attribute data.

8. (Original) An apparatus as described in claim 6, wherein the ink-amount calculating unit reads an amount of ink consumed for one dot stored for each printer model, and calculates ink consumption as the product of the read ink consumption amount multiplied by the color pixel count as attribute data.

9. (Original) An apparatus as described in claim 8, wherein the ink-amount calculating unit stores for each type of sheet that can be printed a standard ink-usage for ink-usage other than for printing the logo data, and calculates ink-usage per printed sheet from the standard ink-usage and the ink-usage for logo data printing as attribute data.

10. (Original) An apparatus as described in claim 9, wherein the ink-amount calculating unit calculates a number of sheets that can be printed per ink

cartridge from a previously stored ink cartridge capacity and calculated ink-usage per printed sheet as attribute data.

11. (Original) An apparatus as described in claim 9, wherein the ink-amount calculating unit calculates average ink cartridge life from the calculated ink-usage per printed sheet and a previously stored average number of printed sheets issued in a specific time.

12. (Original) An apparatus as described in claim 1, wherein the calculated results from the ink-amount calculating unit can be externally output as print data in conjunction with the logo data.

13. (Canceled)

14. (Previously Presented) A logo data generating method for generating logo data for printing by a transaction printer, comprising the steps of:

(a) capturing a source image for image processing;

(b) generating logo data, including non-printing pixels and color pixels of a single color or multiple colors, by processing the source image based on defined image processing conditions;

(c) calculating attribute data indicating an amount of ink required to print the logo data being generated by the processing step (b);

(d) displaying the generated logo data and attribute data simultaneously;

(e) repeating steps (b) to (d) as needed, wherein each time the logo data is regenerated or changed, attribute data indicating an amount of ink required to print the regenerated or changed logo data is recalculated, and the regenerated or changed logo data is displayed simultaneously with the recalculated attribute data; and

(f) storing the logo data as image data in nonvolatile memory in the transaction printer for printing on a print sheet such as a sales receipt, transaction receipt, or other form.

15. (Original) A logo data generating method as described in claim 14, wherein the attribute data calculating step (c) calculates a number of color pixels in the logo data as attribute data.

16. (Original) A logo data generating method as described in claim 14, wherein the attribute data calculating step (c) calculates a pixel count for each color of the color pixels in the logo data as attribute data for each color, and the displaying step (d) displays the pixel count for each color of the color pixels as attribute data.

17. (Original) A logo data generating method as described in claim 16, wherein the attribute data calculating step (c) calculates as attribute data the pixel count of a first color and the pixel count of a second color in the logo data when the logo data has a first color, a second color, and a non-printing color, and the displaying step (d) displays the first color pixel count and the second color pixel count as respective attribute data.

18. (Original) A logo data generating method as described in claim 14, wherein the attribute data calculating step (c) calculates the total number of color pixels for all colors, and calculates a percentage of each color pixel count relative to the total pixel count, as attribute data.

19. (Original) A logo data generating method as described in claim 14, wherein the attribute data calculating step (c) calculates a count of color pixels in the logo data, and calculates the product of the color pixel count multiplied by ink consumption used to print a pixel unit, as the attribute data.

20. (Original) A logo data generating method as described in claim 19, wherein the attribute data calculating step (c) calculates a count of color pixels for each color in the logo data, and calculates the product of the color pixel count multiplied by ink consumption used to print a pixel unit for each color in the logo data, as attribute data.

21. (Original) A logo data generating method as described in claim 19, wherein the attribute data calculating step (c) reads an amount of ink consumed for one dot stored for each printer type input in the input step (a), and calculates ink

consumption as the product of the read ink consumption amount multiplied by the color pixel count as attribute data.

22. (Original) A logo data generating method as described in claim 19, wherein the attribute data calculating step (c) calculates ink-usage per printed sheet from the ink-usage for logo data printing and a previously stored standard ink-usage per printed sheet for ink-usage other than for logo data printing.

23. (Original) A logo data generating method as described in claim 22, wherein the attribute data calculating step (c) calculates a number of sheets that can be printed per ink cartridge from a previously stored ink cartridge capacity and ink-usage per printed sheet as attribute data.

24. (Original) A logo data generating method as described in claim 22, wherein the attribute data calculating step (c) calculates average ink cartridge life from the calculated ink-usage per print sheet and a previously stored average number of printed sheets issued in a specific time.

25. (Currently Amended) A machine-readable medium embodying a program of instructions for directing a machine to execute a logo data generating method, the program of instructions comprising:

(a) instructions for capturing a source image for image processing;

(b) instructions for generating logo data, including non-printing pixels and color pixels of a single color or multiple colors, by processing the source image based on defined image processing conditions;

(c) instructions for calculating attribute data indicating an amount of ink required to print by a transaction printer the logo data being generated;

(d) instructions for displaying the generated logo data and attribute data;

(e) instructions for repeating instructions (b) to (d) as needed, wherein each time the logo data is regenerated or changed, attribute data indicating an amount of ink required to print the regenerated or changed logo data is recalculated, and the regenerated or changed logo data is displayed simultaneously with the recalculated attribute data; and

(f) <u>instructions for</u> storing the logo data as image data in nonvolatile memory in the transaction printer for printing on a print sheet such as a sales receipt, transaction receipt, or other form.

26. (Original) A machine-readable medium as described in claim 25, wherein instructions (c) comprise instructions for calculating a number of color pixels in the logo data as attribute data.

27. (Original) A machine-readable medium as described in claim 25, wherein the instructions (c) comprise instructions for calculating a pixel count for each color of the color pixels in the logo data as attribute data for each color, and the instructions (d) comprise instructions for displaying the pixel count for each color of the color pixels as attribute data.

28. (Original) A machine-readable medium as described in claim 27, wherein the instructions (c) comprises instructions for calculating as attribute data the pixel count of a first color and the pixel count of a second color in the logo data when the logo data has a first color, a second color, and a non-printing color, and the instructions (d) comprises instructions for displaying the first color pixel count and the second color pixel count as respective attribute data.

29. (Original) A machine-readable medium as described in claim 25, wherein the instructions (c) comprises instructions for calculating the total number of color pixels for all colors, and calculating a percentage of each color pixel count relative to the total pixel count, as attribute data.

30. (Original) A machine-readable medium as described in claim 25, wherein the instructions (c) comprises instructions for calculating a count of color pixels in the logo data, and calculating the product of the color pixel count multiplied by ink consumption used to print a pixel unit, as the attribute data.

31. (Original) A machine-readable medium as described in claim 30, wherein the instructions (c) comprises instructions for calculating a count of color pixels for each color in the logo data, and calculating the product of the color pixel count multiplied by ink consumption used to print a pixel unit for each color in the logo data, as attribute data.

32. (Original) A machine-readable medium as described in claim 30, wherein the instructions (c) comprises instructions for reading an amount of ink consumed for one dot stored for each printer type input, and calculating ink consumption as the product of the read ink consumption amount multiplied by the color pixel count as attribute data.

33. (Original) A machine-readable medium as described in claim 30, wherein the instructions (c) comprises instructions for calculating ink-usage per printed sheet from the ink-usage for logo data printing and a previously stored standard ink-usage per printed sheet for ink-usage other than for logo data printing.

34. (Original) A machine-readable medium as described in claim 33, wherein the instructions (c) comprises instructions for calculating a number of sheets that can be printed per ink cartridge from a previously stored ink cartridge capacity and ink-usage per printed sheet as attribute data.

35. (Original) A machine-readable medium as described in claim 33, wherein the instructions (c) comprises instructions for calculating average ink cartridge life from the calculated ink-usage per print sheet and a previously stored average number of printed sheets issued in a specific time.

36. (Original) A machine-readable medium as described in claim 25, wherein the machine-readable medium comprises a floppy disc, magneto-optical disc, optical disc, IC memory, magnetic recording tape, or electromagnetic signal capable of the carrying the program of instructions.

37. (Original) A machine-readable medium as described in claim 25, wherein the program of instructions includes an executable command set and data set.

38. (Previously Presented) A host system having a data transmission unit for sending logo data to a transaction printer for printing a logo on a receipt using multiple colors of ink, the host system comprising:

    a reading unit for reading source data for logo data being generated on the host system;

    a first computing unit for calculating a size for the logo data;

a second computing unit for calculating predicted ink-usage for each color used in the logo data;

a display unit for displaying the logo data and at least one of the logo size calculated by the first computing unit or the ink-usage calculated by the second computing unit simultaneously, wherein when the logo data being generated is changed, the logo size or predicted ink-usage being displayed is recalculated by the corresponding computing unit in substantially real-time, and the display unit displays the changed logo data and the recalculated logo size or predicted ink-usage simultaneously; and

wherein the logo data that is sent to the transaction printer is stored as image data in nonvolatile memory in the transaction printer for printing on a print sheet such as a sales receipt, transaction receipt, or other form.

39. (Previously Presented) A logo data generating method of a host system for sending logo data to a transaction printer printing logo data on a receipt using multiple colors of ink, comprising the steps of:

reading source data for logo data being generated on the host system;

calculating a size for the logo data;

calculating predicted ink-usage for each color used in the logo data; and

displaying the logo data and at least one of the logo size calculated by the size calculating step or the ink-usage calculated by the ink-usage calculating step simultaneously, wherein when the logo data being generated is changed or reprocessed, the logo size or predicted ink-usage being displayed is recalculated by the corresponding computing unit in substantially real-time, and the display unit displays the changed logo data and the recalculated logo size or predicted ink-usage simultaneously; and

wherein the logo data that is sent to the transaction printer is stored as image data in nonvolatile memory in the transaction printer for printing on a print sheet such as a sales receipt, transaction receipt, or other form.

40. (Original) A logo data generating method as described in claim 39, further comprising the step of reprocessing the logo data based on the displayed ink-usage.